



Operations Manager Report

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OSU /CDF

Sept 19, 2002

Page 1

Stores & Studies



Summary of Stores

- 4.25 pb⁻¹ data acquired @ efficiency ~ 80%

Store	Start	Duration (hr)	Init. Lum (E30)	B0TLUM (nb ⁻¹)	B0TLIV (nb ⁻¹)	Efficiency (%)
1748	09/12	16.3	21.4	805.9	617.9	76.7
1750	09/13	17.7	25.7	1012.0	820.1	81.0
1752	09/13	15.3	19.3	694.1	517.5	74.5
1754	09/14	17.4	19.6	734.4	667.6	90.1
1756	09/15	16.8	19.1	660.4	569.8	86.3
1758	09/16	19.1	19.5	740.0	588.8	79.6
1764	09/17	19.9	19.8	681.0	466.4	68.4
1769	09/19	...	15.



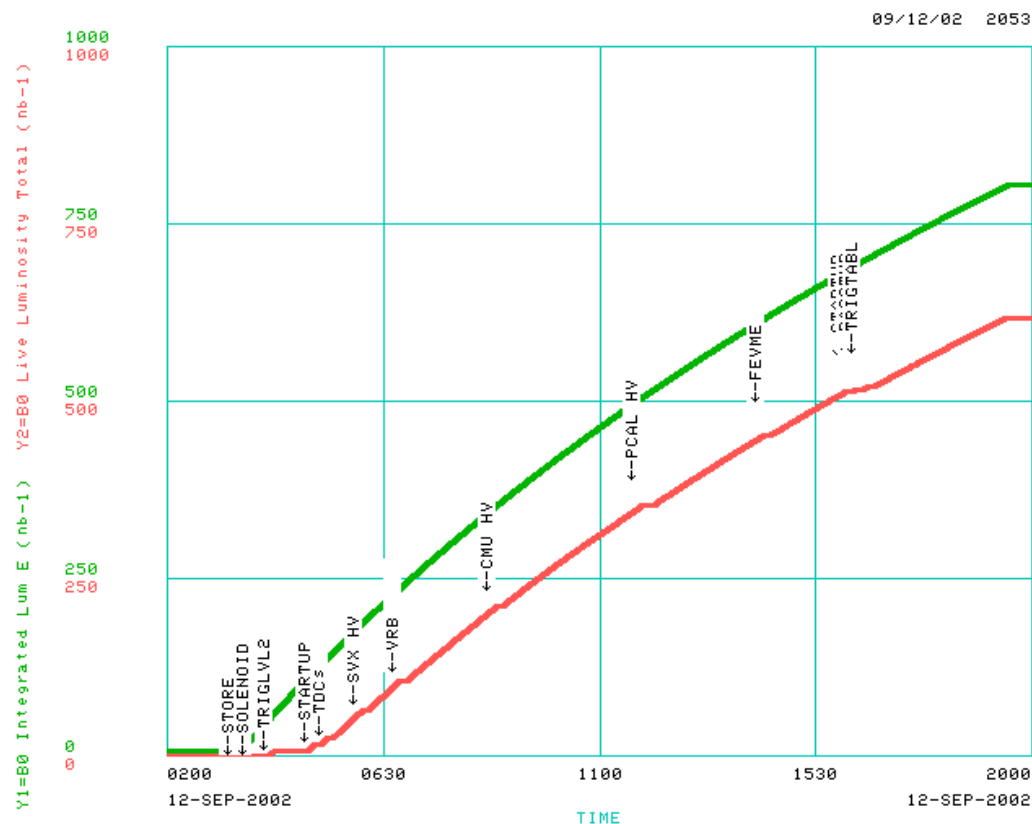
Thursday 9/12 - Store 1748

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Sept 19, 2002

Page 3



- Hot calorimeter trigger tower (Wedge 15E tower 1) masked.
- Problems at start of store
 - Plug HV monitor PC hung
 - Accidentally turned off solenoid.
 - L2/SVT problems that went away when silicon was integrated
- Silicon D-mode calibrations taken at 16:10 in parallel with dynamic prescale trigger testing.
- End of store access to replace a CAFE card.
 - ccal13, slot 17, channel 3
 - high trigger rates in spike run



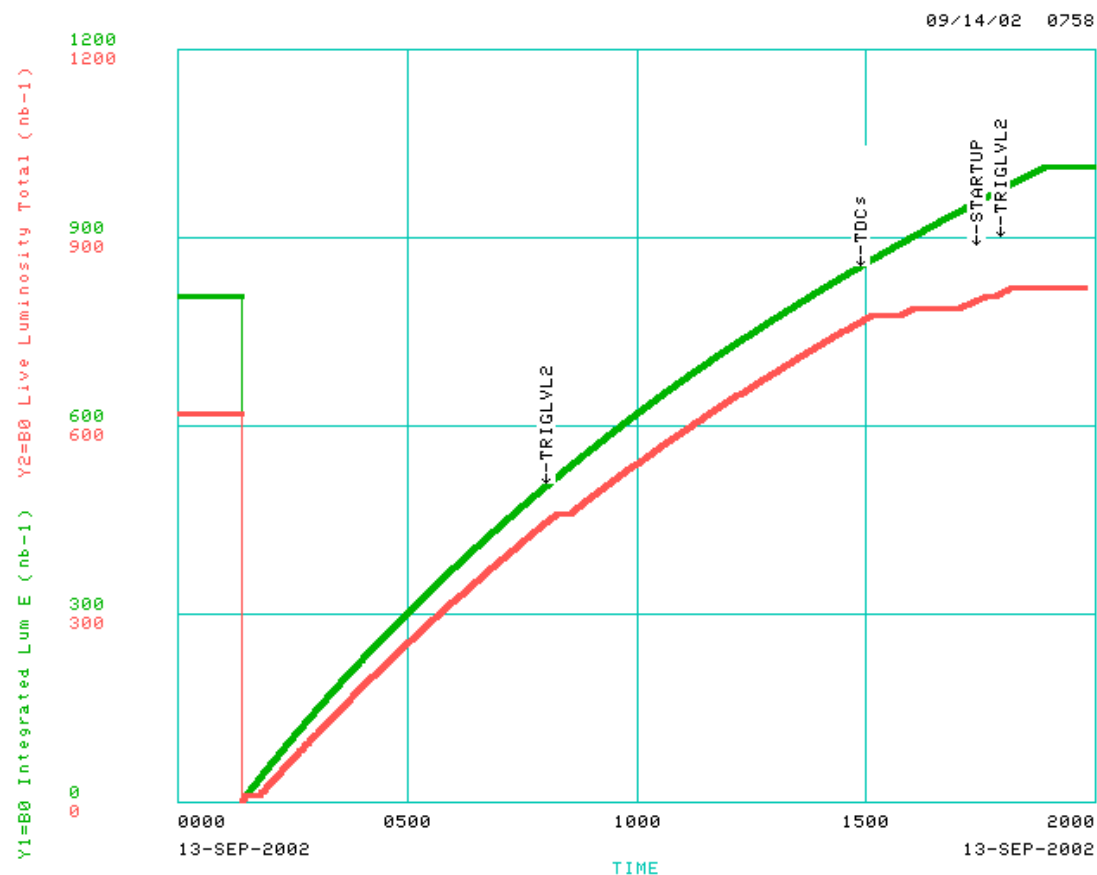
Friday 9/13 - Store 1750

Phillip Koehn

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Sept 19, 2002

Page 4



- Tevatron RF cavity 6 lost at 10:42 - silicon turned off at end of store.
- Had to drop COT TDC in b0cot08 slot 3 around 15:00.
- Tested TEST_BMU[5,150,318] (Run 151487) without silicon



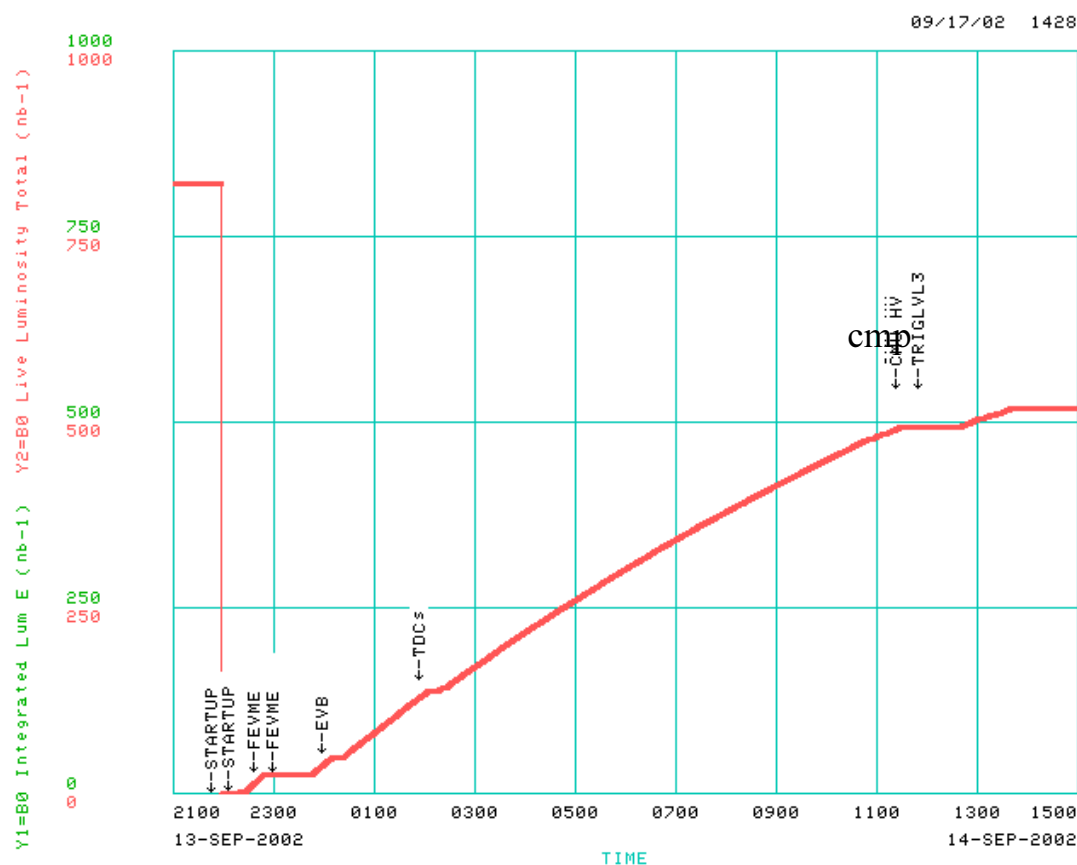
Later on Friday 9/13 ...Store 1752

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Sept 19, 2002

Page 5



- TDC in b0cot08 slot 3 was not read out in this store.
- Delays turning on silicon. Eventually dropped wedge B2W10 from readout. This wedge was known to be flaky.
- Lots of CMP trips on the bottom parts of the detector.
- Level 3 problems - a misleading error message caused the wrong subfarms to be dropped. Bill Badgett fixed it.
- TDC was replaced during a 1 hour access after this store.



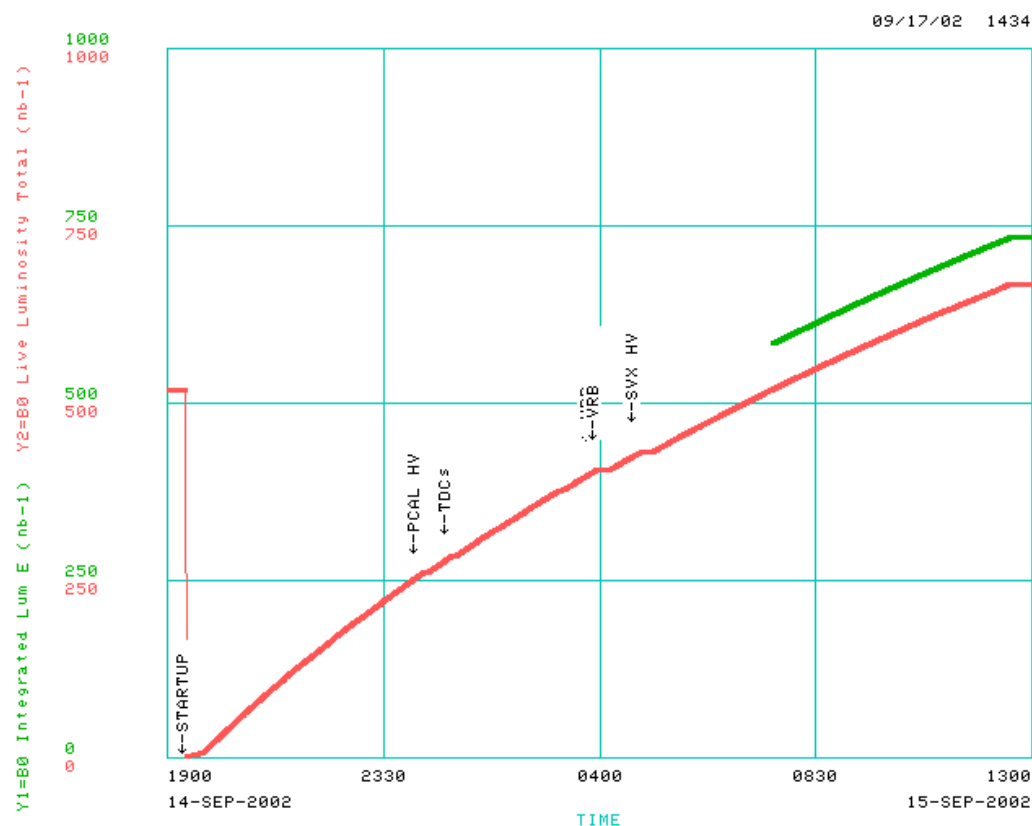
Saturday 9/14 - Store 1754

Phillip Koehn

OSU/CDF

Sept 19, 2002

Page 6



- Smooth running.
- Si integrated quickly.
- L00 B1W4 had a 5V DOIM trip, recovered.



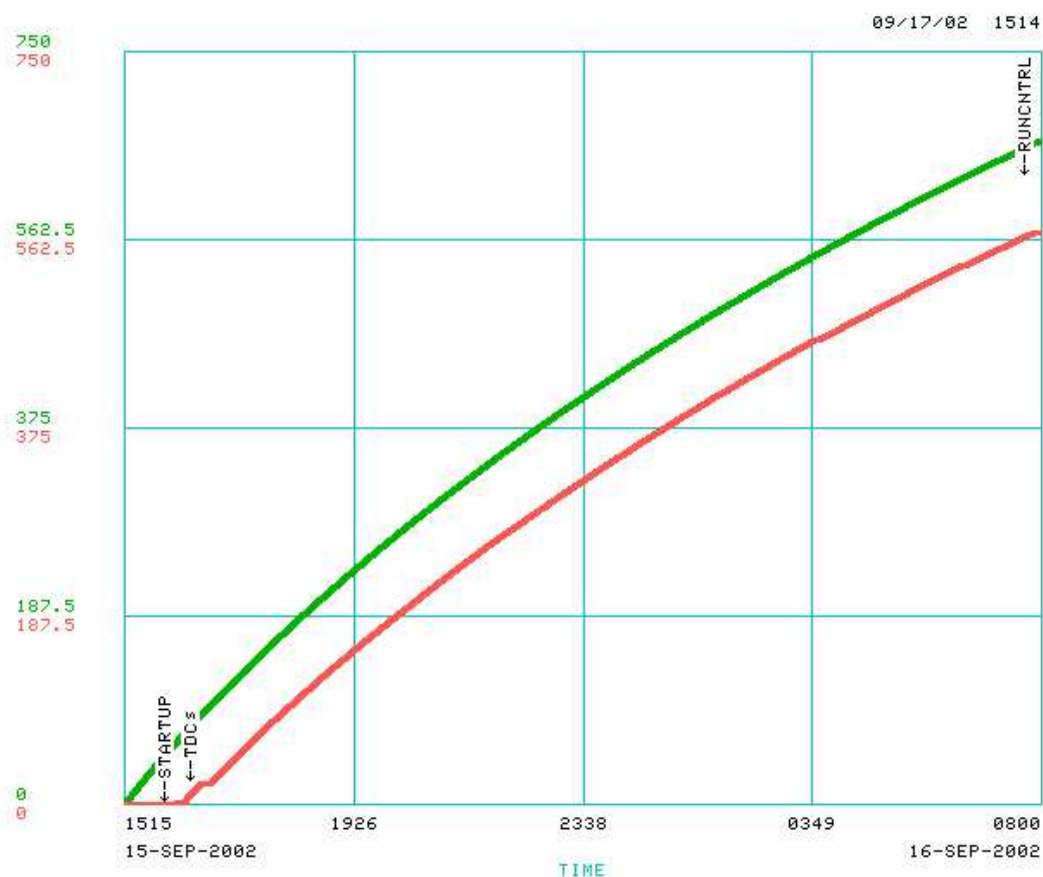
Sunday 9/15 - Store 1756

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Sept 19, 2002

Page 7



- TDC in b0cot04 slot 8 failed and was removed from readout.
- Also, L3/evb problems contributed to down time at start of store.
- Smooth running otherwise.
- TDC in b0cot04 was replaced in a controlled access at the end of the store.



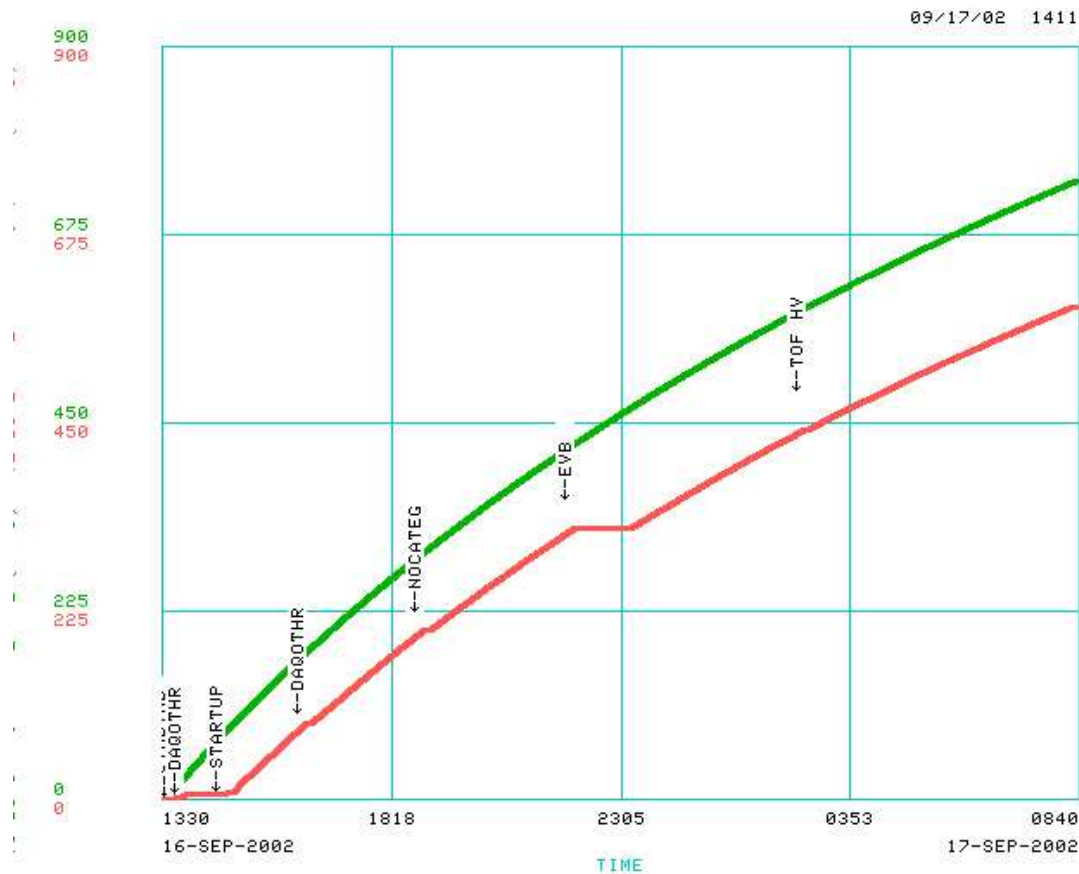
Monday 9/16 - Store 1758

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Sept 19, 2002

Page 8



- Effort to recover from an initial VRB problem delays Si integration at start of store.
- EVB gateway machine hangs and has to be rebooted to recover.
- Smooth running otherwise.



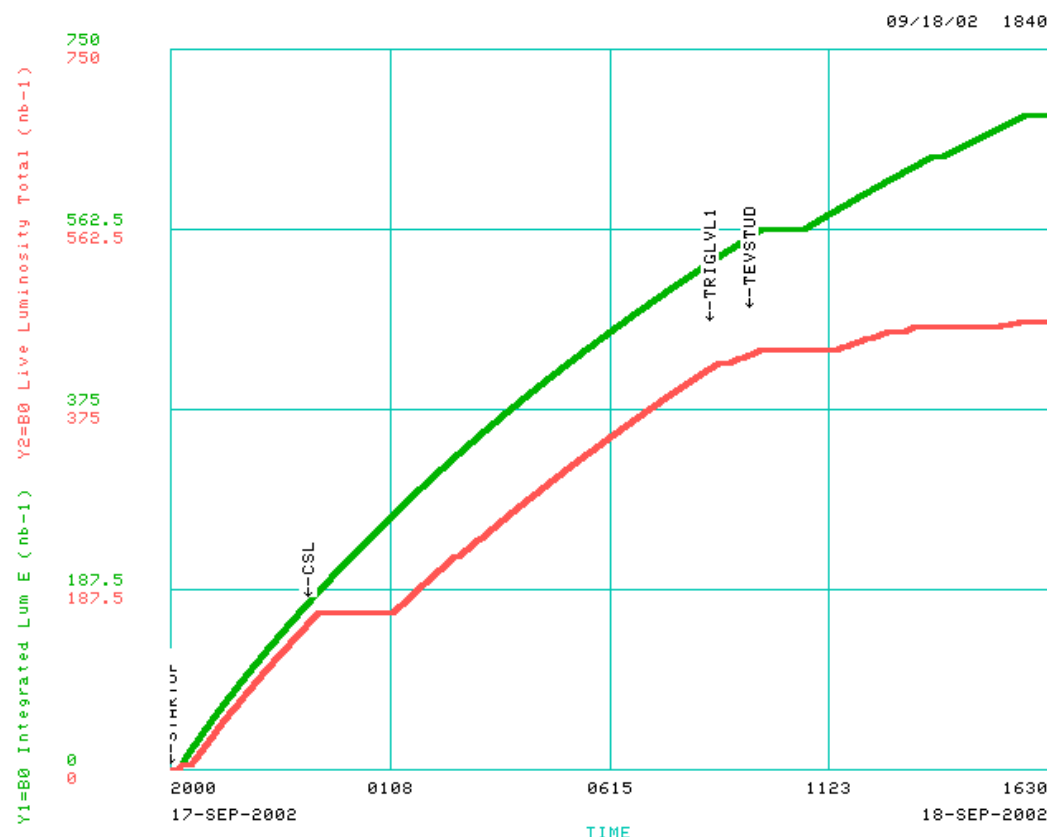
Tuesday 9/17 - Store 1764

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Sept 19, 2002

Page 9



- It took a while to get store in. False starts during proton injection.
 - Problem traced to manual settings for pilot shots that had the E48 abort kicker firing when it shouldn't.
- Si integrated quickly.
- CSL problem (not receiving BOR) caused L3 transition failures. Improved error detection now in place.
- TEST_BMU[5,150,318] with Silicon. More tests today.
- End of store horizontal separator studies performed to increase luminosity lifetime.
- CDF Studies ...



CDF Studies - Store 1764

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Sept 19, 2002

Page 10

- **L3/evb**
 - processor node work.
 - More L3/evb work today.
- **TS firmware test**
 - to remove spurious L1DONE timeouts from the TS when data taking stops.
- **Diffraction trigger timing scan studies**
 - Successful. More work today.
- **TOF trigger links timed into the muon matchbox crate.**
 - Can now read TOF trigger data associated with these three links into the TCMD bank.
- **The RunControl client L3Manager (L3M)**
 - recompiled with more comprehensive state return handling.
- **SVT work**
 - algorithm for initial beam position to reduce L2 deadtime at beginning of run – looks for last good fit.
- **L1 readout list test to see if bits are set correctly in TL2D**
- **Central laser run work**
- **Calibration SEVB tests**



Summary

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OSU /CDF

Sept 19, 2002

Page 11

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- **Overall, data taking went well this week.**
 - **Beam losses low**
 - did not prevent Si integration.
 - Soon, the shift crew will be using Tevmon (monitors beam conditions such as losses and beam in the abort gap) to decide when to integrate Si.
 - **Made 3 short controlled access for board swaps.**
 - **We were able to use the machine studies time productively.**